

6. (Amended) The modulator of Claim 15 wherein the electro-optic material comprises a plurality of layers.
7. (Amended) The modulator of Claim 15 wherein each electrode comprises an electrically conductive layer that contacts a dielectric layer.
8. (Amended) The modulator of Claim 15 wherein the semiconductor substrate comprises a CMOS integrated circuit.
9. (Amended) The modulator of Claim 15 further comprising a light source and an optical coupler.
10. (Amended) The modulator of Claim 15 further comprising a memory circuit co-located with each pixel.
11. (Amended) The modulator of Claim 15 wherein each pixel circuit comprises a random access memory.

13. (Amended) The modulator of Claim 12 wherein the first layer comprises PLZT.

15. (Amended) A spatial light modulator comprising:

an array of pixels formed on a semiconductor substrate, each pixel including a solid state electro-optic material positioned between a first electrode and a second electrode;

a first mirror underneath the electro-optic material and a second mirror above the electro-optic material forming a cavity; and

an array of pixel circuits formed with the semiconductor substrate, each pixel being connected to a pixel circuit.